

REMARKS

Careful consideration has been given by the applicants to the Examiner's comments and rejection of the claims, as set forth in the outstanding Office Action, and favorable reconsideration and allowance of the application, as amended, is earnestly solicited.

Applicants note the Examiner's renewed examination of the present application, which was filed as a Request for Continued Examination (RCE) application, and the rejection of the claims under 35 U.S.C. §103 over the art, as previously applied thereto.

In particular, applicants note the Examiner's rejection of Claims 15 and 17 under 35 U.S.C. §103(a), as being unpatentable over Colgan, et al., U.S. Patent No. 5,831,710 A, which is applicants own earlier U.S. patent, in view of Haven, EP0113064, as set forth in the Information Disclosure Statement submitted by the present applicants.

Concerning the foregoing, applicants note the extensive reasons set forth by the Examiner in rejecting the claims.

Furthermore, applicants note the rejection of Claim 18 under 35 U.S.C. §103(a), as being unpatentable over Colgan, et al., U.S. Patent No. 5,831,710 A in view of Haven, EP0113064, as applied to the preceding claims, further in view of Nagae, et al., U.S. Patent No. 5,995,190 A, as also extensively detailed in the Office Action.

Accordingly, upon careful consideration of the art and in order to advance the prosecution of the present application and place the claims into substantial order for allowance, applicants have herewith amended Claims 15, 17 and 18 to incorporate further structural and functional limitations, which provide clear and significant distinctions over the art, irrespective as to whether the latter is considered singly or in combination.

Hereby, in order to clearly and unambiguously distinguish over the art, Claims 15 and 17 have been amended, referring to Lines 7 and 8 of Claim 15, and Lines 17 and 18 of Claim 17, respectively, whereby it has now been emphasized that the column-like structure is formed by a column member 28 and a thereto-facing column member 35 for keeping the gap between the first and second substrates constant.

Those particular features of the mutually facing column members 28 and 35, which form the column-like structure, as illustrated in Figures 4(a) and 4(b), in order to maintain the cell gap H1 constant, and wherein a column member is formed by the same patterning process of that of the wall-like structure 26, 27 for ease fabrication has a thereto-facing column member formed on the counter substrate so as to define a minor space.

The foregoing limitations, which are now incorporated into Claims 15 and 17, are clearly described in Figure 4 and in the paragraph beginning on Line 14 on Page 16 of the specification of the present application.

To the contrary, Colgan, et al., teach a wall segment row 25 similar to a wall-like structure in a post 24 similar to a column-like structure on a single substrate 40, as illustrated in Figure 2 of the drawings of that particular publication. In that case, the wall segment and the post are of the same height and define the gap A between the substrates 1 and 9, as illustrated in Figure 1 of the drawings, when processed concurrently. Hereby, Colgan, et al. only teach the combination of the wall segment and the post and does not in any manner teach nor suggest the key element of having the column member 28 in the thereto-facing column member 35 arranged to form the column-like structure to keep the cell gap constant. That, in itself, provides a significant patentable distinction advantage over the art represented by

Colgan, et al. Even combining Colgan, et al. with the secondary publications would not lead to the inventive subject matter.

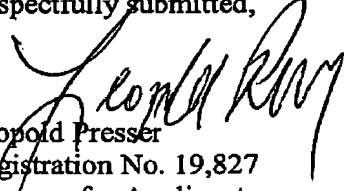
Haven, EP 0113064 discloses the presence of a raised ledge 53 and a spacer 54 on a single substrate, and wherein the height of the raised ledge is lower than that of the spacer or the gap. For that configuration, there is required an extra patterning process in order to form the raised ledge. Haven only discloses the effectiveness of the raised ledge in order to contain the required volume of the liquid crystal material, but does not in any manner teach nor suggest the structure and function of the column 28 and the thereto-facing column 35 to maintain the gap constant. Even combining Haven with Colgan, et al. would not lead to the invention, as set forth and claimed in the presently amended claims.

With regard to Claim 18, this has been also amended to indicate that the column-like structure for regulating the size of the gap between the first and second substrate is formed by coupling the column member and a thereto-facing column member (28 and 35), in which the column member (28) is formed with the wall-like structure by patterning. This also distinguishes over the previously discussed publications and also provides patentable distinctions over the reference to Nagae, et al. Nagae, et al. teach a method of applying a photosensitive resin onto a substrate and performing UV exposure to the resin. However, in combination with Colgan, et al. and Haven, Nagae, et al. does not disclose nor teach the construction of the column member and thereto-facing column member (28 and 35) and is subject to the same limitations.

In view of the foregoing comments and amendments, which are deemed to clearly and patentably distinguish over the art, the claims are now deemed to be in clear and unambiguous condition for allowance, and the early issuance of the Notice of Allowance by the Examiner is

earnestly solicited. However, in the event that the Examiner has any queries concerning the instantly submitted Amendment, applicants' attorney respectfully requests that he be accorded the courtesy of possibly a telephone conference to discuss any matters in need of attention.

Respectfully submitted,



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